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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/527,410	03/16/2000	Bing Lin Yang	YKI-0034	1559
23413	7590	02/24/2004	EXAMINER	
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			EASTHOM, KARL D	
			ART UNIT	PAPER NUMBER
			2832	

DATE MAILED: 02/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/527,410

Applicant(s)

YANG, BING LIN

Examiner

Karl D Easthom

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 5, 8-9, 13, 15, 17, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Jones. Jones discloses sealing spacers 4,5 fixed on the lead portion of terminals 10,11, on one piece cylindrical housing 3, the sealing spacer fixed airtightly at said housing at said interior around the portion where metal 6 resides on the interior of the housing. The tips of c are broadened with a projected surface. In claim 2, the welding is by way of metal 6 or by heating 5,6. In claim 8 there is a mixture of gas and air since the air cannot be all discharged, and the gas is "insert" since it has been inserted. In claims 5 and 9, the shape is cylindrical. In claim 13, the projection is "substantially conical" where the term is one of degree and the surface looks like a cone that is not pointy. In claim 15, col. 1, line 70 discloses spherical end sections which would include a semi-spherical portion.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3-4 and 12 are rejected under 35 U.S.C. 103(a) as obvious over Jones in view of Kozlowski. The claimed invention is as noted above except the inert gas and clean dry air. Kozlowski discloses repeated backfilling and flushing which would inherently results in the cleanliness claimed, col. 3, lines 5-20. Jones discloses hermetic sealing and using gas filling at

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col. 2. It would have been obvious to backfill and flush until the desired cleanliness is obtained and to use the inert gas and clean air where repeated flushing for cleaning is disclosed, for the purpose of getting the air as clean as possible.

5. Claims 16 and 20 are rejected under 35 U.S.C. 103(a) as obvious over Jones in view of Kawiecki, Lange et al. '260, or Hill et al. The claimed invention is disclosed except for the grid pattern. Kawiecki discloses such a pattern 30 at fig. 5 to inhibit electrode erosion and to hold electrode material, as does Lange at Figs. 1-3 for holding discharge material at col. 2, as does Hill as 3C at Figs. 1-2 for the same reason at col. 2, such that it would have been obvious to provide such a pattern for the purpose noted in the Jones device.

6. Claims 14 and 18 are rejected under 35 U.S.C. 103(a) as obvious over Jones in view of Zuk. The claimed invention is disclosed except for the conical delimiting pattern. Zuk discloses such a pattern at Fig. 2 for the purpose of controlling the gap width - see col. 2. . It would have been obvious to employ the pattern for the purpose of controlling the gap width.

7. Claims 6-7 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones in view of Harada et al. The noted reference discloses the claimed invention except for the lead wires being Dumet. Harada et al. discloses such a lead wire at col. 6 for the purpose of forming leads that penetrate glass. It would have been obvious in view of Harada et al. to form lead wires of Dumet for penetrating the glass of the references noted

8. Applicant's arguments filed 1/12/04 have been fully considered but they are not persuasive. Applicant argues that the device is not airtight. This is contrary to the disclosure of hermetically sealed gas filled. Applicant argues that the spacers are not fixed to the electrodes because they are fixed to another part. This is not correct as all parts are fixed together. As to

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Jones not having a projected surface, this is not correct where the surface C is clearly projected from a plane. As to the predetermined distance not disclosed, this is not correct, the distance was predetermined before the device was manufactured in the manner it is.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl D Easthom whose telephone number is (272) 571-1989. The examiner can normally be reached on M-Th, 5:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on (272) 571-1989. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Karl D Easthom  
Primary Examiner  
Art Unit 2832

KDE